

Remarks

The present remarks and above amendments fully respond to each of the issues raised in the Office Action. No new matter has been added.

Rejection of Claims 1-7 and 9 Under 35 U.S.C. §103(a)

The Action rejects claims 1-7 and 9 as being unpatentable over Abrams in view of Hendry. Applicant respectfully disagrees. The cited references, in combination, do not disclose integrating at least one screw of an extruder, at least one metering device and a processing unit so that the screw of the extruder and processing unit are operated in an identical cycle time and that the extruder and the metering device have identical run up times and identical deceleration times. More particularly, in Applicant's invention, the compounding in the processing unit and the extruding process are triggered according to the cycle time of the processing unit. The compounding process, however, takes place only at the time when the molten is extruded into the processing unit. Applicant has amended claim 1 to make these features more apparent. Amended claim 1 specifically recites that the control is formed to actuate the at least one screw and the at least one metering device only when a melt strand 38 is to be extruded into the processing unit. Applicant has also incorporated the limitations of claims 2 and 3 into claim 1.

To further underscore the differences between Hendry, Abrams and Applicant's invention, Applicant has replaced the phrase "screw-type compounding unit" with "extruder". An extruder is something quite different from the injection molding machine of Abrams. In an extruder, materials are compounded. In an injection molding machine, the product is molten and injected into a mold.

Abrams in fact only shows a screw-type injection molding machine with a screw which is driven by a motor to melt and mix material to be injection molded. In Abrams there is a block driver to push or pull the screw for compression injecting. Abrams further only shows the extrusion of a molten billet by pushing the screw from a retracted position to a forward position. During this period, Abrams indicates the screw drive may be stopped. Abrams therefore does not show at least one screw that is driven when a melt strand is to be extruded to the processing unit. Abrams also thus does not show an apparatus having a metering device triggered by the cycle time of the processing unit.

Hendry does not teach or suggest any of the deficiencies noted in Abrams. Hendry only shows a ram-type molding machine with a feed screw which is used to feed molten plastic

material to the molding machine. The feed screw is not an extruder with metering devices. The screw is only driven when the continuously driven motor is coupled to the screw by a clutch which is to be triggered. Again, there is no metering device.

Claims 4-7 and 9 depend from claim 1 and thus have all of the features of claim 1. These claims are thus allowable for the same reasons with respect to claim 1. The obviousness rejection to claims 1-7 and 9 should be withdrawn.

Rejection of Claim 8, 35 U.S.C. §103

The Examiner rejects claim 8 as unpatentable over Abrams in view of Hendry as applied to claims 1-7 and 9 and in further view of Scheuring. Applicant disagrees. For the reasons stated, Abrams and Hendry do not make obvious claims 1-7 and 9. These features are incorporated into claim 8. The Action does not cite Scheuring as making up for any of the shortcomings of Abrams and Hendry with respect to claims 1-7 and 9. The cited reference Scheuring does not make up for the shortcomings.

Applicant also disagrees that one would combine the teachings of Scheuring with Hendry and Abrams. Hendry uses a simple feed screw and Abrams uses injection molding. These machines are not prepared or equipped for mixing fibers into a compound. Scheuring does not at all suggest modification of these types of machines.

Rejection of Claims 13 and 14, 35 U.S.C. §103(a)

The Action rejects claims 13 and 14 as being unpatentable over Abrams in view of Hendry as applied to claims 1-7 and 9 and in further view of Coon or Fisher. Applicant disagrees. For the reasons stated, Henry and Abrams do not make obvious the limitations recited in claims 1-7 and 9. These limitations are incorporated into claims 13 and 14. Neither Coon nor Fisher is cited as making up for the shortcomings of Abrams or Hendry. These references indeed do not make up for the shortcomings.

Applicant also disagrees that these references teach modifying Abrams and Hendry. Injection molding machines or feeding screws like those of Abrams and Hendry always use one screw. Only extruders may use two screws. As stated, extruders and injection molding machines are completely different. Thus, there is no suggestion to completely rework Abrams and Hendry into an extruder.

Conclusion

Applicant has pointed out the distinctions between its invention as set forth in the

amended claims and the cited references. A Notice of Allowance should now issue.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James B. Conte", is written over a horizontal line.

James B. Conte, Registration No. 54,661

Barnes & Thornburg

P.O. Box 2786

Chicago, Illinois 60690-2786

(312) 357-1313

CHDS01 JCONTE 218483v1